

REMARKS

Claims 1-7 are currently pending, wherein claims 1-4 and 7 have been amended. Favorable reconsideration is respectfully requested in view of the remarks presented herein below.

At the outset, Applicants would like to thank Examiner Behncke for the courtesy given Applicants' Representative during the telephone interview conducted on January 5, 2011. During the interview, the Examiner's interpretation of the independent claims in view of the applied prior art, particularly the Hedstrom reference were discussed. Applicants' agreed to file a Supplemental Amendment further distinguishing the claimed invention from the applied prior art.

On page 2 of the final Office action ("Action"), the Examiner rejects claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over Japanese publication no. JP 08-119197A to Morimoto et al. ("Morimoto"), in view of U.S. Patent No. 4,069,784 to Hedstrom et al. ("Hedstrom"). Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. § 103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness three criteria must be met. First, there must be some rationale to combine the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 1-7 are patentable over the combination of Morimoto and Hedstrom for at least the fact that the combination fails to disclose a control unit for determining a set bearing, wherein the set bearing is based on a radius deviation between the desired turning radius and a current turning radius, and a rudder angle output device for outputting a command rudder angle, wherein the rudder angle is determined based on a deviation angle between the set bearing and a current ship heading measured by a bearing sensor as claimed.

Although Hedstrom discloses a method and system for kinematic steering of a vessel in a yaw path having a given radius of curvature conforming with a predetermined control law, nowhere in Hedstrom is there any disclosure or suggestion of a control unit for determining a set bearing, wherein the set bearing is based on a radius deviation between the desired turning radius and a current turning radius, and a rudder angle output device for outputting a command rudder angle, wherein the rudder angle is determined based on a deviation angle between the set bearing

and a current ship heading measured by a bearing sensor as claimed. At best, Hedstrom only discloses means for determining a rudder command based on a radius deviation between the desired turning radius and a current turning radius, not both a control unit and a rudder angle device as claimed.

Since Morimoto and Hedstrom both fail to disclose or suggest a control unit for determining a set bearing, wherein the set bearing is based on a radius deviation between the desired turning radius and a current turning radius, and a rudder angle output device for outputting a command rudder angle, wherein the rudder angle is determined based on a deviation angle between the set bearing and a current ship heading measured by a bearing sensor as claimed, the combination of these two references cannot possibly disclose or suggest said element. Therefore, even if one skilled in the art had some rationale to combine Morimoto and Hedstrom (which Applicants do not concede), the combination would still fail to render claims 1-7 unpatentable because the combination fails to disclose each and every claimed element. Reconsideration and withdrawal of the rejection of claims 1-7 is respectfully requested.

The application is in condition for allowance. Notice of same is earnestly solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Penny Caudle Reg. No. 46,607 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

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